

FILE 'USPAT' ENTERED AT 13:16:17 ON 26 MAR 95

L1 1240 S THERMAL SENSOR#
L2 34826 S PROGRAMM? AND (THERMAL OR TEMPERATURE)
L3 232 S L1 AND L2
L4 80126 S INTEGRATED CIRCUIT#
L5 15448 S TEMPERATURE (3A) COMPENSAT?
L6 33 S L3 AND L4
L7 4 S L5 AND L6
L8 118 S L1 AND L4
L9 10 S L8 AND L5
L10 56389 S THERMAL (3A) SENS? OR TEMPERATURE (3A) SENS?
L11 4564 S L10 AND L4
L12 963 S L11 AND L5
L13 294 S L12 AND L2
L14 125847 S TRANSISTOR#
L15 157 S L13 AND L14
L16 94067 S THRESHOLD
L17 73 S L15 AND L16
L18 62325 S CLOCK AND FREQUENC?
L19 34 S L17 AND L18
=> s temperature and voltage#

5,117,206

681676 TEMPERATURE
319864 VOLTAGE#

L20 122760 TEMPERATURE AND VOLTAGE#
=> s l19 and l20
L21 34 L19 AND L20
=> d 1-34

1. 5,396,163, Mar. 7, 1995, Battery charger; Jiri K. Nor, et al., 320/21, 23, 35, 39, 52 [IMAGE AVAILABLE]
2. 5,389,953, Feb. 14, 1995, Non-impact printer module with improved burn-in testing capability and method using same; Keith W. Agar, et al., 347/5, 237 [IMAGE AVAILABLE]
3. 5,329,811, Jul. 19, 1994, Downhole fluid property measurement tool; Roger L. Schultz, et al., 73/155, 19.1, 152; 166/250, 264 [IMAGE AVAILABLE]
4. 5,315,533, May 24, 1994, Back-up uninterruptible power system; Frederick A. Stich, et al., 364/480; 307/66; 364/481, 483 [IMAGE AVAILABLE]
5. 5,289,362, Feb. 22, 1994, Energy control system; Ronald J. Liebl, et al., 364/140; 165/12; 236/46R; 364/145, 464.04 [IMAGE AVAILABLE]
6. 5,280,280, Jan. 18, 1994, DC integrating display driver employing pixel status memories; Robert Hotto, 345/94, 98, 148 [IMAGE AVAILABLE]
7. 5,268,601, Dec. 7, 1993, Logarithmic amplifier circuit with **temperature** **compensation**; Peter A. Cossins, 327/350, 362; 330/289 [IMAGE AVAILABLE]
8. 5,257,210, Oct. 26, 1993, Processor for processing sensor signals to obtain a desired transfer behavior; Georg Schneider, et al., 364/553, 556, 581 [IMAGE AVAILABLE]

✓ 5,283,631

9. 5,207,101, May 4, 1993, Two-wire ultrasonic transmitter; Kevin M. Haynes, 73/597, 290V [IMAGE AVAILABLE]
10. 5,204,611, Apr. 20, 1993, Charging circuits for rechargeable batteries and cells; Jiri K. Nor, et al., 320/21, 23, 35, 39, 52 [IMAGE AVAILABLE]
11. 4,984,449, Jan. 15, 1991, Ultrasonic liquid level monitoring system; Joseph W. Caldwell, et al., 73/49.2, 290V [IMAGE AVAILABLE]
12. 4,965,579, Oct. 23, 1990, N-bit A/D converter utilizing N comparators; Gang Liu, et al., 341/159, 158 [IMAGE AVAILABLE]
13. 4,845,419, Jul. 4, 1989, Automatic control means providing a low-power responsive signal, particularly for initiating data preservation operation; David C. Hacker, 320/39, 2; 323/303 [IMAGE AVAILABLE]
14. 4,818,883, Apr. 4, 1989, Luminometer apparatus; Joseph C. Anderson, et al., 250/361C, 458.1, 459.1; 422/52; 436/172 [IMAGE AVAILABLE]
15. 4,757,747, Jul. 19, 1988, Power transmission; Albert Blatter, et al., 91/362, 363R [IMAGE AVAILABLE]
16. 4,716,354, Dec. 29, 1987, Automatic **voltage** regulator means providing a dual low power responsive and output-**voltage**-controlling regulator signal particularly for a plural source battery powered system; David C. Hacker, 320/39; 323/303 [IMAGE AVAILABLE]
17. 4,709,202, Nov. 24, 1987, Battery powered system; Steven E. Koenck, et al., 320/43, 35, 39, 48; 340/636 [IMAGE AVAILABLE]
18. 4,702,141, Oct. 27, 1987, Guitar controller for a music synthesizer; Carmine Bonanno, 84/626, 645, 646, DIG.30; 984/346, 371, DIG.1; D17/9, 20 [IMAGE AVAILABLE]
19. 4,484,295, Nov. 20, 1984, Control circuit and method for varying the output of a waveform generator to gradually or rapidly vary a control signal from an initial value to a desired value; James F. Bedard, et al., 364/607; 323/322, 350, 354; 330/282; 363/16; 364/480 [IMAGE AVAILABLE]
20. 4,389,706, Jun. 21, 1983, Digital computer monitored and/or operated system or process which is structured for operation with an improved automatic **programming** process and system; John W. Gomola, et al., 364/130, 226.7, 227.4, 231.4, 231.6, 237.8, 241.2, 241.3, 241.5, 259, 259.3, 260, 260.1, 260.4, 260.6, 281.3, 281.6, 281.8, 282.1, 282.3, 283.1, 468, 492, 550, DIG.1; 395/600 [IMAGE AVAILABLE]
21. 4,368,420, Jan. 11, 1983, Supply **voltage** sense amplifier; James R. Kuo, 323/303, 267, 281, 313, 901, 907 [IMAGE AVAILABLE]
22. 4,349,728, Sep. 14, 1982, Target apparatus; Robert B. Phillips, et al., 235/400; 273/372; 364/423; 367/127, 906; 434/1 [IMAGE AVAILABLE]
23. 4,345,253, Aug. 17, 1982, Passive sensing and encoding transponder; D. Robert Hoover, 342/44, 50, 51 [IMAGE AVAILABLE]

24. 4,255,789, Mar. 10, 1981, Microprocessor-based electronic engine control system; Thomas W. Hartford, et al., 364/431.06; 123/417, 480, 492; 364/723 [IMAGE AVAILABLE]

25. 4,253,764, Mar. 3, 1981, Solar energy metering and recording system; Ralph A. Morrill, 356/225, 43, 318 [IMAGE AVAILABLE]

26. 4,227,245, Oct. 7, 1980, Digital computer monitored system or process which is configured with the aid of an improved automatic ****programming**** system; Warren A. Edblad, et al., 364/468, 221, 221.2, 221.7, 221.9, 222.81, 222.82, 224, 224.2, 230, 230.1, 230.3, 230.4, 234, 235, 237.2, 237.8, 238, 242.1, 245, 245.1, 248, 248.1, 248.3, 259, 259.5, 262.4, 262.5, 267.9, 280, 281.3, 281.7, 281.8, 282.1, 282.3, 283.1, DIG.1 [IMAGE AVAILABLE]

27. 4,227,185, Oct. 7, 1980, Single chip integrated analog-to-digital converter circuit powered by a single ****voltage**** potential; John W. Kronlage, 341/167; 324/99D; 326/100; 374/170 [IMAGE AVAILABLE]

28. 4,216,528, Aug. 5, 1980, Digital computer implementation of a logic director or sequencer; James D. Robertson, 364/468, 221, 221.2, 221.4, 221.7, 221.9, 222.81, 222.82, 225, 226.8, 226.9, 228.3, 230, 230.1, 230.3, 232.3, 232.7, 232.9, 234, 235, 236, 236.1, 236.2, 236.3, 236.5, 237, 237.2, 237.4, 237.8, 241.2, 248, 248.1, 248.3, 254.9, 258, 258.1, 258.2, 258.3, 259, 259.2, 259.5, 259.7, 259.8, 260, 260.2, 260.4, 260.8, 261.3, 261.4, 261.5, 262.4, 262.5, 264, 264.6, 271, 271.5, 280, 280.2, 281.3, 281.8, DIG.1; 395/650 [IMAGE AVAILABLE]

29. 4,215,407, Jul. 29, 1980, Combined file and directory system for a process control digital computer system; John W. Gomola, et al., 364/468, 221, 221.2, 221.4, 221.7, 221.9, 222.81, 226.8, 226.9, 228.3, 230, 230.1, 230.2, 230.3, 230.4, 232.3, 234, 235, 236.1, 236.2, 236.3, 237.2, 237.4, 237.8, 242.1, 248, 248.1, 248.3, 254.9, 255.1, 255.2, 258, 258.1, 258.2, 258.3, 259, 259.5, 262.4, 262.5, 264, 280, 280.8, 281.3, 281.7, 281.8, DIG.1; 395/600 [IMAGE AVAILABLE]

30. 4,215,406, Jul. 29, 1980, Digital computer monitored and/or operated system or process which is structured for operation with an improved automatic ****programming**** process and system; John W. Gomola, et al., 364/468, 221, 221.2, 221.4, 221.7, 221.9, 222, 222.81, 222.82, 230, 230.1, 230.3, 234, 237.8, 238.2, 238.3, 241.2, 242.1, 243, 243.2, 245, 245.5, 246, 246.3, 248.1, 251, 251.5, 252, 259, 259.3, 260.4, 260.6, 260.9, 261, 262.4, 262.5, 267, 267.1, 267.2, 267.4, 270.5, 270.8, DIG.1; 395/600, 700 [IMAGE AVAILABLE]

31. 4,163,396, Aug. 7, 1979, Digital readout pressure sensor; John B. S. Waugh, 73/721, 727 [IMAGE AVAILABLE]

32. 4,107,667, Aug. 15, 1978, Dual slope analog-to-digital converter with unique counting arrangement; John W. Kronlage, 341/167; 324/99D; 374/170 [IMAGE AVAILABLE]

33. 4,079,338, Mar. 14, 1978, I^{sup.2} L ring oscillator and method of fabrication; John W. Kronlage, 331/57; 326/100; 331/108B, 108C, 177R; 374/163, 170 [IMAGE AVAILABLE]

34. 4,061,033, Dec. 6, 1977, ****Temperature**** function integrator; Peter Anthony Nixon, 374/103, 170 [IMAGE AVAILABLE]

1. 5,249,141, Sep. 28, 1993, Method and apparatus for maintaining an active device below a maximum safe operating temperature; Bart C. Vandebroek, et al., 364/557; 324/71.1; 361/103; 364/480, 579 [IMAGE AVAILABLE]
2. 5,103,232, Apr. 7, 1992, Phase quantization error decorrelator for phased array antenna; Kaichiang Chang, et al., 342/372, 377 [IMAGE AVAILABLE]
3. 5,041,800, Aug. 20, 1991, Lower power oscillator with heated resonator (S), with dual mode or other temperature sensing, possibly with an insulative support structure disposed between the resonator (S) and a resonator enclosure; Bruce R. Long, et al., 331/69; 310/315, 344; 331/158 [IMAGE AVAILABLE]
4. 4,985,687, Jan. 15, 1991, Low power temperature-controlled frequency-stabilized oscillator; Bruce R. Long, 331/69; 310/315, 343, 344; 331/66, 70, 158 [IMAGE AVAILABLE]
5. H 562, Dec. 6, 1988, Accurate electronic thermometer; Gary M. Trachier, et al., 364/557; 374/101 [IMAGE AVAILABLE]
6. 4,701,684, Oct. 20, 1987, Door or gate obstruction control; Raymond L. Seidel, et al., 318/282; 49/28; 318/456, 469, 473 [IMAGE AVAILABLE]
7. 4,537,515, Aug. 27, 1985, Resonator **temperature** **compensated** time base and watch using said time base; Rudolf Dinger, et al., 368/202; 331/66, 70, 176; 368/11, 200; 968/823, 905, DIG.1 [IMAGE AVAILABLE]
8. 4,243,949, Jan. 6, 1981, Frequency stabilization technique for microstrip oscillators; David L. Saul, et al., 331/9, 176 [IMAGE AVAILABLE]
9. 3,826,924, Jul. 30, 1974, **TEMPERATURE** **COMPENSATED** THERMAL RELAY DEVICE; Charles T. Plough, et al., 307/117; 219/505; 361/211 [IMAGE AVAILABLE]
10. 3,688,295, Aug. 29, 1972, ELECTRONIC TEMPERATURE MONITORING SYSTEM; John Tsoras, et al., 340/595; 327/82; 340/514; 374/166, 170, 181 [IMAGE AVAILABLE]

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4,171,078, " resonator osc. w digital Temp. comp.

4,172,269 " Temp Comp. Sense amplifier

1. 5,378,873, Jan. 3, 1995, Electrothermal conversion elements, apparatus and methods for use in comparing, calibrating and measuring electrical signals; Fred L. Katzmann, 219/502, 483, 497, 505; 250/338.1; 374/183 [IMAGE AVAILABLE]
2. 5,370,301, Dec. 6, 1994, Apparatus and method for flip-chip bonding; James F. Belcher, et al., 228/180.22, 44.3, 212; 269/8 [IMAGE AVAILABLE]
3. 5,359,236, Oct. 25, 1994, **Integrated** **circuit** **thermal** **sensor**; Raymond L. Giordano, et al., 327/512, 378; 330/288 [IMAGE AVAILABLE]
4. 5,357,089, Oct. 18, 1994, Circuit and method for extending the safe operating area of a BJT; John S. Prentice, 330/298, 207P, 289, 296 [IMAGE AVAILABLE]
5. 5,355,123, Oct. 11, 1994, Overheating detection circuit for detecting overheating of a power device; Masaharu Nishiura, et al., 340/653; 327/512; 340/598; 361/103; 374/152, 178 [IMAGE AVAILABLE]
6. 5,351,876, Oct. 4, 1994, Apparatus and method for flip-clip bonding; James F. Belcher, et al., 228/180.22, 49.1, 212; 269/8 [IMAGE AVAILABLE]
7. 5,349,336, Sep. 20, 1994, Overheating detection circuit for detecting overheating of a power device; Masaharu Nishiura, et al., 340/653; 257/467; 327/512; 340/598; 361/103; 374/152, 178 [IMAGE AVAILABLE]
8. 5,324,980, Jun. 28, 1994, Multi-layer type semiconductor device with semiconductor element layers stacked in opposite direction and manufacturing method thereof; Shigeru Kusunoki, 257/74, 723 [IMAGE AVAILABLE]
9. 5,324,678, Jun. 28, 1994, Method of forming a multi-layer type semiconductor device with semiconductor element layers stacked in opposite directions; Shigeru Kusunoki, 437/51, 62 [IMAGE AVAILABLE]
10. 5,283,816, Feb. 1, 1994, Smoke detector using telephone link; Leo A. Gomez Diaz, 379/40; 340/533; 379/43 [IMAGE AVAILABLE]
11. 5,269,458, Dec. 14, 1993, Furnace monitoring and thermostat cycling system for recreational vehicles and marine vessels; David Sol, 236/11, 94; 431/27 [IMAGE AVAILABLE]
12. 5,216,607, Jun. 1, 1993, Method and apparatus for sensing a vehicle crash using energy and velocity as measures of crash violence; Robert W. Diller, et al., 364/424.05; 280/735; 307/10.1; 340/436 [IMAGE AVAILABLE]
13. 5,189,500, Feb. 23, 1993, Multi-layer type semiconductor device with semiconductor element layers stacked in opposite directions and manufacturing method thereof; Shigeru Kusunoki, 359/72; 257/72, 84; 359/48 [IMAGE AVAILABLE]
14. 5,087,870, Feb. 11, 1992, Constant power circuit; Emery Salesky, et al., 323/276, 274, 275, 293; 361/18, 86, 87 [IMAGE AVAILABLE]
15. 5,071,733, Dec. 10, 1991, Patterned thin film and process for preparing the same; Masakazu Uekita, et al., 430/326, 270, 330 [IMAGE AVAILABLE]

AVAILABLE]

16. 5,070,732, Dec. 10, 1991, Modular sensor device; William M. Duncan, et al., 73/431, 756; 364/571.08; 374/143 [IMAGE AVAILABLE]

17. 5,070,322, Dec. 3, 1991, An overheating detection circuit including a reversely biased junction having a temperature dependent reverse leakage current for detecting overheating of a power **integrated** **circuit**; Tatsuhiko Fujihira, 340/653; 257/470; 327/512; 340/598; 374/152, 178 [IMAGE AVAILABLE]

18. 5,041,800, Aug. 20, 1991, Lower power oscillator with heated resonator (S), with dual mode or other temperature sensing, possibly with an insulative support structure disposed between the resonator (S) and a resonator enclosure; Bruce R. Long, et al., 331/69; 310/315, 344; 331/158 [IMAGE AVAILABLE]

19. 5,017,494, May 21, 1991, Bio-thermo tip sensor; Isao Karube, et al., 435/288; 204/403 [IMAGE AVAILABLE]

20. 4,999,576, Mar. 12, 1991, Electrical-energy-supplying device having an extended storage life; Lionel M. Levinson, 324/142; 307/66; 429/62 [IMAGE AVAILABLE]

21. 4,985,687, Jan. 15, 1991, Low power temperature-controlled frequency-stabilized oscillator; Bruce R. Long, 331/69; 310/315, 343, 344; 331/66, 70, 158 [IMAGE AVAILABLE]

22. 4,979,763, Dec. 25, 1990, Method and apparatus for sensing a vehicle crash; Brian K. Blackburn, 280/735; 180/282 [IMAGE AVAILABLE]

23. 4,950,181, Aug. 21, 1990, Refrigerated plug-in module; Warren W. Porter, 439/485; 361/689 [IMAGE AVAILABLE]

24. 4,943,471, Jul. 24, 1990, Patterned thin film and process for preparing the same; Masakazu Uekita, et al., 428/220; 136/263; 428/411.1, 473.5; 528/183, 186, 188, 331, 342, 348, 350, 353 [IMAGE AVAILABLE]

25. 4,935,864, Jun. 19, 1990, Localized cooling apparatus for cooling **integrated** **circuit** devices; William L. Schmidt, et al., 363/141; 257/467, 714, 719, 930; 323/907; 361/719; 363/147 [IMAGE AVAILABLE]

26. 4,935,636, Jun. 19, 1990, Highly sensitive image sensor providing continuous magnification of the detected image and method of using; Kenneth Gural, 250/578.1, 208.1 [IMAGE AVAILABLE]

27. 4,932,218, Jun. 12, 1990, Automatic control for evaporative coolers and the like; Maurice A. Robbins, 62/171, 175, 176.6; 236/44B, 44C; 261/26 [IMAGE AVAILABLE]

28. 4,919,201, Apr. 24, 1990, Corrosion inhibition apparatus for downhole electrical heating; Jack E. Bridges, et al., 166/60, 65.1, 902; 204/147, 196 [IMAGE AVAILABLE]

29. 4,882,934, Nov. 28, 1989, Ultrasonic instrument to measure the gas velocity and/or the solids loading in a flowing gas stream; Charles B. Leffert, et al., 73/861.04, 861.26 [IMAGE AVAILABLE]

30. 4,870,863, Oct. 3, 1989, Modular switch device; William M. Duncan, et al., 73/431, 714, 866.1; 200/56R; 307/112; 361/681, 730; 364/571.04; 374/14, 141, 143 [IMAGE AVAILABLE]
31. 4,802,099, Jan. 31, 1989, Physical parameter balancing of circuit islands in **integrated** **circuit** wafers; Joseph C. Logue, 364/491; 327/513, 526; 364/488, 571.01 [IMAGE AVAILABLE]
32. 4,779,161, Oct. 18, 1988, Multi-driver **integrated** **circuit**;
Thomas R. DeShazo, Jr., 361/106; 327/109, 513; 330/207P, 256, 298;
361/103 [IMAGE AVAILABLE]
33. 4,727,239, Feb. 23, 1988, Plug having encapsulated **thermal**
sensor, for engine block heater; Peter J. Lupoli, et al., 219/208;
123/142.5E; 219/504; 338/22R; 374/185 [IMAGE AVAILABLE]
34. 4,726,235, Feb. 23, 1988, Ultrasonic instrument to measure the gas
velocity and/or the solids loading in a flowing gas stream; Charles B.
Leffert, et al., 73/861.04, 861.26 [IMAGE AVAILABLE]
35. 4,722,018, Jan. 26, 1988, Blocked condenser airflow protection for
refrigeration systems; Walter J. Pohl, 361/22; 318/445, 782; 361/29, 33,
86 [IMAGE AVAILABLE]
36. 4,656,496, Apr. 7, 1987, Power **transistor** emitter ballasting;
Robert J. Widlar, 257/567, 580 [IMAGE AVAILABLE]
37. 4,618,266, Oct. 21, 1986, Measurement of energy in flowing fluid;
Murray F. Feller, 374/41; 165/47; 374/20, 35, 39, 40 [IMAGE AVAILABLE]
38. 4,581,619, Apr. 8, 1986, Image forming apparatus; Atsushi Mizutome,
et al., 347/136; 359/36 [IMAGE AVAILABLE]
39. 4,554,491, Nov. 19, 1985, Brushless DC motor having a laminated
stator with a single stator winding; Larry E. Plunkett, 318/254; 310/62,
63, 68R, 186; 416/170R [IMAGE AVAILABLE]
40. 4,359,620, Nov. 16, 1982, Induction heating apparatus; Joseph R.
Keller, 219/659, 670, 673 [IMAGE AVAILABLE]
41. 4,313,110, Jan. 26, 1982, Smoke alarm having temporary disabling
features; Thomas Subulak, et al., 340/527, 309.6, 628 [IMAGE AVAILABLE]
42. 4,237,730, Dec. 9, 1980, Fluid velocity measurement system; Chung L.
Feng, 73/861.95 [IMAGE AVAILABLE]
43. 4,199,694, Apr. 22, 1980, Terminal convertible alternating current
switch; Donald L. Van Zeeland, 327/460, 463 [IMAGE AVAILABLE]
44. 4,101,816, Jul. 18, 1978, Switch control system; Joseph J. Shepter,
318/130, 128, 132; 363/28 [IMAGE AVAILABLE]
45. 4,046,991, Sep. 6, 1977, Power control apparatus; Philip Charles
Sefton, et al., 219/497, 501, 508 [IMAGE AVAILABLE]
46. 4,031,950, Jun. 28, 1977, Process fluid circulation and temperature
control system; Gilbert F. Shultz, 165/31; 236/15BF, 17; 364/172, 185

[IMAGE AVAILABLE]

47. 4,001,586, Jan. 4, 1977, Thick film sensor and infrared detector;
Anthony V. Fraioli, 250/345, 338.1; 338/22SD; 374/121, 183 [IMAGE
AVAILABLE]

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4,553,048

4,667,265